

ABSTRACT OF THE DISCLOSURE

An integrated sprocket and housing used in a variable valve timing mechanism.

The integrated sprocket and housing includes: a sprocket portion which is formed in a substantially annular shape, and which has teeth on the outer circumference thereof; and a housing portion which is disposed inside the sprocket portion, which has recesses in the inside thereof, and which is formed integrally with the sprocket portion as a sintered body made of a ferrous powder material, wherein the entire surface of the sprocket portion and the housing portion is covered with a steam oxidized layer which is formed by a steam treatment, and a nitrided layer which is formed by a gas soft nitriding treatment subsequent to the steam treatment.